

Amended Claims With Mark-ups to Show Changes Made

10. (Four Times Amended) A wireless data communication method in which at least one mobile switching center including a mobile connection control module, a mobile data path connection control module, a public network data path connection control module and a trunk connection control module are connected with at least one data network interworking unit by a first data path and a second data path, comprising:

inputting an identification number of a called party mobile station;

establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel;

calling the called party mobile station at the mobile data network interworking unit;

establishing a second call from said called party mobile station to the mobile data network interworking unit when a data response comes from said called party mobile station and then establishing a second traffic channel after the mobile data path connection module informs the public network data path connection control module of a normal state of a first data path between a mobile switching center and the mobile data network interworking unit;

establishing a call between the mobile switching center and the mobile data network interworking unit through a second data path; and

connecting said first and second traffic channels through at least one modem of the interworking unit to perform circuit data service.

21. (Four Times Amended) A wireless data communication method in which at least one mobile switching center having a mobile connection control module, a mobile data path connection control module, a public network data path connection control module and a trunk connection control module is connected with at least one data network interworking unit through a first data path and a second data path to perform circuit data service, comprising:

- a) inputting an identification number of a called party mobile station;
- b) establishing a first traffic channel after establishing a first call from a calling party mobile station to a first mobile data network interworking unit having at least one modem through a first mobile switching center;
- c) calling a called party mobile station controlled by a second mobile switching center from said first mobile data network interworking unit through said public network data path connection control module and said trunk connection control module;
- d) establishing a second traffic channel after a second call from said called party mobile station to a second mobile data network interworking unit having at least one modem is established when said called party mobile station responds and said mobile data path connection module informs said public network data path connection control module of a normal state of a first data path;
- e) establishing a call between said public network data path connection control module and said second mobile data network interworking unit after said mobile data path

connection control module informs said public network data path connection control module of the completion of channel establishment when said second traffic channel is completely established;

f) releasing the traffic channel between said mobile connection control module and said public network data path connection control module when the call establishment between the public network data path connection control module and said second mobile data network interworking unit is completed; and

g) connecting said public network data path connection control module with the trunk connection control module.

32. (Thrice Amended) An interworking unit for a wireless communication system, comprising:

a data path connector to couple over at least first and second data paths to a mobile switching center;

a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station;

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile

terminal and the second mobile terminal is normally executed, and to transmit an identification number from the second terminal to the main processor; and

    a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in accordance with a control signal from the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem.

35. (Twice Amended) A method of performing wireless data communications, comprising:

    inputting an identification number of a first mobile station;

    establishing a first call from a second mobile station to a said mobile data network interworking unit and then establishing a first traffic channel;

    calling the first mobile station at the mobile data network interworking unit;

    establishing a second call from the first mobile station to the mobile data network interworking unit when a data response comes from the first mobile station and then establishing a second traffic channel after a mobile data path connection module informs a public network data path connection control module of a normal state of the first data path;

    establishing a call between a mobile switching center and the mobile data network interworking unit through the second data path; and

connecting the first and second traffic channels through at least one modem of  
the mobile data network interworking unit to perform circuit data service.

Clean Set of Amended Claims

10. (Four Times Amended) A wireless data communication method in which at least one mobile switching center including a mobile connection control module, a mobile data path connection control module, a public network data path connection control module and a trunk connection control module are connected with at least one data network interworking unit by a first data path and a second data path, comprising:

inputting an identification number of a called party mobile station;  
establishing a first call from a calling party mobile station to a mobile data network interworking unit and then establishing a first traffic channel;  
calling the called party mobile station at the mobile data network interworking unit;  
establishing a second call from said called party mobile station to the mobile data network interworking unit when a data response comes from said called party mobile station and then establishing a second traffic channel after the mobile data path connection module informs the public network data path connection control module of a normal state of a first data path between a mobile switching center and the mobile data network interworking unit;  
establishing a call between the mobile switching center and the mobile data network interworking unit through a second data path; and  
connecting said first and second traffic channels through at least one modem of the interworking unit to perform circuit data service.

21. (Four Times Amended) A wireless data communication method in which at least one mobile switching center having a mobile connection control module, a mobile data path connection control module, a public network data path connection control module and a trunk connection control module is connected with at least one data network interworking unit through a first data path and a second data path to perform circuit data service, comprising:

*D2*

- a) inputting an identification number of a called party mobile station;
- b) establishing a first traffic channel after establishing a first call from a calling party mobile station to a first mobile data network interworking unit having at least one modem through a first mobile switching center;
- c) calling a called party mobile station controlled by a second mobile switching center from said first mobile data network interworking unit through said public network data path connection control module and said trunk connection control module;
- d) establishing a second traffic channel after a second call from said called party mobile station to a second mobile data network interworking unit having at least one modem is established when said called party mobile station responds and said mobile data path connection module informs said public network data path connection control module of a normal state of a first data path;
- e) establishing a call between said public network data path connection control module and said second mobile data network interworking unit after said mobile data path connection control module informs said public network data path connection control module

of the completion of channel establishment when said second traffic channel is completely established;

D2  
f) releasing the traffic channel between said mobile connection control module and said public network data path connection control module when the call establishment between the public network data path connection control module and said second mobile data network interworking unit is completed; and

g) connecting said public network data path connection control module with the trunk connection control module.

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32. (Thrice Amended) An interworking unit for a wireless communication system, comprising:

a data path connector to couple over at least first and second data paths to a mobile switching center;

D3  
a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station;

a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and to transmit an identification number from the second terminal to the main processor; and

*D3*  
a switching circuit, configured to selectively switch a connection between the circuit data processor and the data path connector in accordance with a control signal from the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem.

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35. (Twice Amended) A method of performing wireless data communications, comprising:

*D4*  
inputting an identification number of a first mobile station;  
establishing a first call from a second mobile station to a said mobile data network interworking unit and then establishing a first traffic channel;  
calling the first mobile station at the mobile data network interworking unit;  
establishing a second call from the first mobile station to the mobile data network interworking unit when a data response comes from the first mobile station and then establishing a second traffic channel after a mobile data path connection module informs a public network data path connection control module of a normal state of the first data path;  
establishing a call between a mobile switching center and the mobile data network interworking unit through the second data path; and  
connecting the first and second traffic channels through at least one modem of the mobile data network interworking unit to perform circuit data service.

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